Appl. No. 09/496,990
Amdt. Dated 06/25/04
Reply to Final Office action of 03/25/04

REMARKS/ARGUMENTS

Claims 1-60 are pending in the present application.

The present application is a Request for Continued Examination under 37 C.F.R. §1.114 of pending U.S. Application Serial Number 09/496,990, which was filed on February 2, 2000. This Amendment is to support the Request for Continued Examination concurrently filed therein. In the Final Office Action dated March 25, 2004, the Examiner rejected claims 1-60 under 35 U.S.C. §103(a). Applicants have amended claims 1, 13, 25, 37 and 49. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Claim Objection

1.   The Examiner objected to claim 60 due to informalities. In response, Applicants respectfully direct the Examiner's attention to the previous response filed on February 10, 2004 where claim 60 was amended to correct the claim dependency. Accordingly, Applicants respectfully request the objection be withdrawn.

Rejection Under 35 U.S.C. § 103

1.   In the final Office Action, the Examiner rejected claims 1-60 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,917,804 issued to Shah et al. ("Shah"). The Examiner further rejected claims 12, 24, 36, 48 over Shah in view of U.S. Patent Application No. US2002/0057649 by Kinnunen ("Kinnunen"). Applicants respectfully traverse the rejection and contend that the Examiner has not met the burden of establishing a prima facie case of obviousness.

Applicants reiterate the arguments set forth in the previously filed Response to the Office Action.

Applicants respectfully request the Examiner consider the following arguments carefully and address all the issues presented. Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it. MPEP 707.07(f). It is important for the Examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply. MPEP 706.02(j). In the final Office Action mailed March 25, 2004,

Docket No: 081862.P173   Page 12 of 16   TVN/tn

among other things, the Examiner did not address specifically the arguments regarding the "booking factor" and the "<u>Kinnunen</u> not being a prior art".

    a) <u>Estimating a measured utilization for admitted connections</u>:

In the final Office Action, the Examiner states that <u>Shah</u> suggests that optimizing resource utilization and adequate satisfaction of QoS are the basis of selecting routes and accepting connections (<u>Shah</u>, col. 1, lines 31-34). However, as discussed in the previous response, this is not the same as "estimating a measured utilization factor for admitted connections" as recited in claims 1, 13, 25, 37 and 49. <u>Shah</u> discloses that "[t]he decision to accept or reject a connection is then based on the amount of available bandwidth on the outgoing link" (<u>Shah</u>, col. 1, lines 44-45). In other words, <u>Shah</u> discloses a resource allocation procedure based on the available bandwidth to decide whether a connection is accepted or rejected. In contrast, the claimed invention estimates a measured utilization factor for connections that are already admitted, not future connections.

    b) <u>Booking factor</u>:

As argued in the previous response, <u>Shah</u> does not disclose or suggest a first estimator to estimate an equivalent cell rate (ECR) based on description of the connection request and the description includes a booking factor. Since <u>Shah</u> does not disclose or suggest a booking factor, <u>Shah</u> does not disclose or suggest (a second estimator to estimate a measured utilization factor for admitted connections) using measurements of data stream <u>and the booking factor</u>.

In the final Office Action the Examiner states that <u>Shah</u> discloses a description including a booking factor and cites column 6, lines 46-63, to support this contentions. However, column 6, lines 46-63, merely describes a two state fluid flow model. This flow model characterizes a source by the peak and mean rates of the connection and the maximum burst size (MBS). The MBS gives some indication of how the data is being generated by the source and has impact on the amount of resources allocated to the connection (<u>Shah</u>, col. 6, lines 52-55). None of the peak rate, mean rate, and MBS is equivalent to a booking factor. Furthermore, the resource allocation procedure discussed in a) above does not use the booking factor.

    c) <u>Kinnunen is not a prior art</u>:

The Examiner has not addressed the issue that <u>Kinnunan</u> is not a prior art as argued in the previous response.

Regarding claims 6, 18, 30, 42, and 54, the Examiner states that "[I]t is not explicitly stated that the arrays are indexed by certain values or contain certain ratios, but the arrays contain the same parameters as claimed by the applicant and yield the same result (columns 7-10)." (final Office Action, pages 4, 6, 8, 10). However, Shah merely discloses two calculation schemes based on a fluid flow model and a cell loss probability (Shah, col. 6, lines 32-38). Two buffers are used, one for high priority traffic (CBR) and another for low priority traffic (VBR) which are multiplexed to an outgoing link (Shah, col. 8, lines 47-50). None of these is equivalent to a scale factor generator and a scaler. Furthermore, none of these includes a look-up table having entries computed for the QoS descriptor and indexed by the connection descriptor.

Regarding claims 12, 24, 36, 48, and 60, the Examiner cites Kinnunen and states that "Shah teaches that the parameters passed on to the controller are the two values of estimated virtual bandwidths, while the Applicant teaches that the parameters passed on to the controller are ECR and measured utilization factor" (final Office Action, page 5, 7, and 9). Applicants respectfully disagrees. First, Kinnunen is not a prior art as argued in the previous response. Second, even if Kinnunen is a prior art, Kinnunen does not disclose a capacity estimator and a measured utilization factor generator as discussed in the previous response. Third, Shah does not disclose or suggest estimating a minimum resource needed for the admitted connections within a measurement window and generating the measured utilization factor using the estimated minimum resource and measurement parameters. Shah merely discloses calculations of the required bandwidth based on the fluid flow method and the cell loss probability method. The input parameters for the fluid flow method include peak cell rate, sustainable cell rate, maximum burst size, cell loss probability, expected utilization for high priority traffic, buffer size, outgoing link rate and timing factor (Shah, col. 7, lines 33-41). These parameters are based on a theoretical model with some assumed probability distribution, e.g., exponential distribution (Shah, col. 2, lines 30-40; col. 6, lines 49-52). They are not based on admitted connections using measurements of data streams arriving at queues and booking factor. Furthermore, none of these calculations is performed within a measurement window.

Accordingly, Applicants believe that claims 1, 13, 25, 37, and 49 are distinguishable from the cited prior art reference. For the similar reasons, dependent claims 2-12, 14-24, 26-36, 38-

48, 50-60 which depend on independent claims 1, 13, 25, 37, and 49, respectively, are distinguishable from the cited prior art reference.

Therefore, Applicants believe that independent claims 1, 13, 25, 37, 49 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejection(s) under 35 U.S.C. §103(a) be withdrawn.

Docket No: 081862.P173   Page 15 of 16   TVN/tn

Appl. No. 09/496,990
Amdt. Dated 06/25/04
Reply to Final Office action of 03/25/04

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: June 25, 2004   By
                               Thinh V. Nguyen
                               Reg. No. 42,034
                               Tel.: (714) 557-3800 (Pacific Coast)

12400 Wilshire Boulevard, Seventh Floor
Los Angeles, California 90025

Docket No: 081862.P173   Page 16 of 16   TVN/tn